UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,919	05/30/2001	Thomas R. Potter SR.	RJL/PO7244US02(30170)	7668

7590 06/18/2004

Laubscher & Laubscher
745 South 23RD Street
Arlington, VA 22306

EXAMINER	
MISKA, VIT W	
ART UNIT	**PAPER NUMBER**
2841	

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/866,919	POTTER ET AL.	
	Examiner	Art Unit	
	Vit W. Miska	2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 25-63 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 25-63 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

1. Claims 37-39 and 40-41 are objected to because of the following informalities: Claims 37-39 lack antecedent basis for "system" in line 1. Claims 40 lacks antecedent basis for "the four loops" in line 5. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 47, 48, 50-56 and 58-62 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

3. The specification and claims contain contradictory description of some aspects of the invention with respect to the de-energizing of the inductive loop sensor. At the

bottom of page 26 and continuing to page 27, the specification states that "(1) when there is no time displayed on the...parking meter power consumption is minimized by de-energizing the inductor loop sensors". Further on page 27, "(3) when time is displayed, the corresponding channel is energized and initiated to produce a resetting pulse for any vehicle leaving the inductor loop", "(4) when no time is displayed, the flasher output is activated when the presence of a vehicle is indicated in the controlled space" and "(5) when a vehicle is present and there is time displayed, the electronic controller provides no output signal".

4. The contradiction appears between condition (1), where the sensors are de-energized when no time appears on the display and (4) with no time displayed, the presence of a vehicle is indicated. It is not clear how the loop sensors are capable of detecting a vehicle with no time indication in condition (4) if the loop sensors are de-energized when no time is displayed as set forth for condition (1). Further, condition (5) appears to further add a discrepancy by requiring de-energization when time is displayed. Condition (5) also appears unattainable in view of the requirement that the sensors are de-energized in this condition, thus preventing the determination of the presence of a vehicle, as required. Condition (5) further appears to contradict condition (3) requiring the sensors to be energized when time is left on the display These features appear in claims 47,48, 50-56 and 58-62.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 25-28, 32, 36 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Kaiser. With respect to claims 25, 32, 36 and 46, the Williams reference discloses an electronic parking meter system including parking meters 130-134 for determining the time a parking space is occupied by a vehicle and receiving coins at 24, 42 and indicating the time at 136, vehicle detection sensor 61, 161 for detecting the presence or absence of a vehicle in the parking space and emitting signal to processor 32, processor controller 32 for controlling the parking meter responsive to the sensor signal, the parking meter indicating the amount of time corresponding to the amount of payment and decrementing the time (see col. 8, lines 48ff).

6. Williams does not indicate the specific type of sensor used as sensor 61,161,but suggests at col. 5, lines 39-41 that "This sensor may be a sensor of the type embedded

in roadways adjacent intersections and used to trigger the change of the intersection light". Thus, one or ordinary skill in the art would be taught to choose an appropriate vehicle sensor for this purpose. The Kaiser patent discloses a parking meter 4 employing a vehicle sensor 14 for determining the presence or absence of a vehicle for resetting the parking meter to zero upon a vehicle leaving the parking space (col. 5, lines 65ff). Sensor 14 is described as a "loop detector" (col. 5, line 20) and arranged "within the parking space so that its sensing path penetrates the parking space diagonally" (col. 5, lines 25ff). One of ordinary skill in the art having both references would therefore have a suggestion of providing an inductive loop type sensor as sensor 61, 161 in the Williams parking meter system as described in the Kaiser patent as one of available sensors meeting the criteria set forth in Williams for this purpose.

7. Kaiser further teaches resetting of the parking meter display to zero when sensor 14 detects that a vehicle no longer occupies the parking space (col. 3, lines 55ff). It would thus have been obvious to one of ordinary skill in the art, at the time the invention was made, to initialize the parking meter in Williams to zero upon a vehicle leaving the parking space, as done in Kaiser, to prevent the use of remaining time by a subsequent vehicle.

8. With respect to the remaining claims, a solar cell panel 30 mounted at the parking meter is suggested in Williams (col. 3, line 42) as a power source. Any such power source would necessarily include a regulator for providing a stable power supply. Locating such a solar panel remote from the parking meter would be obvious to one skilled in the art in view of the well known practice of locating solar panels in areas exposed to maximum sunlight.

9. Claims 29, 33, 37 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams and Kaiser as applied to claims 25, 32, 36 and 46, respectively, above, and further in view of Mushell. Williams suggests indicating a parking violation 226 when time has expired (col. 8, line 56). Flashing of the display is not disclosed, but this type of expired time indication in a parking meter is suggested by Mushell at col. 6, line 57. One of ordinary skilled in the art having the references would thus be taught to flash the time indication or any part thereof in Williams to indicate expired time.

10. Claims 30, 31, 34, 35, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams and Kaiser as applied to claims 25, 32 and 36 above, and further in view of Bahar. The latter reference teaches signaling when a vehicle is in a parking space and no coins have been deposited and a means for delaying such

notification to allow the user to insert coins into the parking meter, see col. 2, lines 49-54. One of ordinary skill in the art would thus have a suggestion of providing these features in the parking meter system of Williams as an obvious means for indicating a violation and for providing sufficient time to insert coins into the parking meter.

11. Claims 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller ('586) in view of Clark ('937) . Clark discloses the claimed inductive coil vehicle detection sensor including a winding of several loops (see col. 1, lines 10-11), the ends of the winding being twisted (col. 1, lines 12-13). The patentee discloses use of the device in a road for sensing vehicle presence (Fig. 1). Fuller discloses a parking meter using a vehicle sensor 19 which may of the inductive loop type detector (col. 8, lines 29ff) embedded in the parking space. One of ordinary skill in the art having both references would thus have a suggestion of using the inductive loop vehicle sensor of Clark as sensor 19 in Fuller as an obvious use of this type of detector suggested by Fuller. With respect to the means for securing the coil, the same would be an obvious and well known means for ensuring coil integrity. Coil size would be selected sufficiently large to provide the desired sensitivity.

12. Claims 42-45 and 63/42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Clark ('937). The corresponding elements of both

references have been identified above. In view of the suggestion in Williams at col. 9, line 4 that vehicle sensor 61, 161 may be of the type embedded in roadways and used to trip traffic lights, one of ordinary skill in the art would use any of such available sensors. The sensor shown in Clark is such a device suitable for use in Williams as a conventional inductive loop sensor used in roadways suggested therein. With regard to claim 63/42, Clark further discloses a variable oscillator 1,2, the processor including oscillator 5 and controlling oscillator 1,2, the presence of a vehicle in the parking space causing a change in the inductance of the loop and the frequency of the variable oscillator, microprocessor controller 3 counting the number of cycles of the oscillator 1,2 by means of counter 6. Use of the inductive loop sensor in Williams would obviously require the corresponding detector circuitry using the variable oscillator.

13. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams and Clark ('937) as applied to claim 42 above, and further in view of Mushell. The provision of a flashing signal in Williams to indicate parking violation would be obvious in view of Clark as noted previously in connection with claim 40.

14. Claims 63/25,32,36,46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams and Kaiser as applied to claims 24,32,36 and 46 above, and further in view of Clark ('937). It would have been obvious to one of ordinary skill in the

art to use the inductive loop vehicle sensor and associated circuitry of Clark as sensor 61, 161 in Williams for reasons set forth the preceding paragraph.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vit W. Miska whose telephone number is 571-272-2108. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vit Miska
Primary Examiner

VM
6/11/2004